

MEETING MINUTES

Joint Selenium Task Force & Selenium Management Program Work Group

October 30th, 2013

Delta Forest Service (N. Spruce Conference Room), 2250 Highway 50, Delta, Colorado

Attendees: David Kanzer (CRWCD), Steve Miller (CWCB), Terry Stroh (USBR), Brent Uilenberg (USBR), Theresa McGovern (NRCS), John Sottolare (USBR), Ken Leib and Josh Linard (USGS), Charles McMurdy (Shavano CD), Barb Osmundson (FWS), Dave Dearstyne (NRCS), Randy Meaker (UV Farmer), Paul Kehmeier (Hotchkiss Farmer), Ron Godin (CSU Extension), Ralph D'Allesandro (Delta CD), Steve Schrock (NoChicoBrush), David Brown (USGS), Jedd Sondergard (BLM)

SELENIUM TASK FORCE (10am-12pm)

I. Introductions

II. Updates

A. Soil Health Conference (January 23rd and 24th)

This year's conference will focus on cover crops and limited till systems for furrow irrigation which are being used successfully on east slope. Guest speakers include Keith Burnes and Ray Ward.

ACTION ITEM: Sonja will approach Sarah Carlquist about presenting at SH Conf.

B. Update on recent cover crop tour sponsored by the Soil Health Group. Dave Dearstyne estimates that the number of acres in cover crops has doubled or tripled over the past few years (Approximately 5% of the irrigated acreage in the Lower Gunnison).

C. STF Accomplishments Report 2010-2013: Sonja presented her list of accomplishments or activities to include in the report.

ACTION ITEM: She will include an executive summary in the report explaining what the report is, who the partners are, and that the accomplishments listed are not just STF activities, but include SMP activities in which the STF has participated.

D. Budget: The STF budget status up to 10/30/13 is healthy this year due to financial support received from CWCB/Species Conservation Trust Funds in support of Sonja's assistance with SMP activities. There was a question about whether the coordinator position can be supported by grants. Sonja indicated that typically her time can only be supported by grants when she is doing the actual work (e.g. education and outreach). She also indicated it is difficult to find support for general facilitation/coordination for groups that are well established. "New" or "expanding" watershed groups can sometimes find grant support for 2-3 years (e.g. Reclamation's Watershed Initiative Grant).

E. System Optimization Study – Dave Kanzer (lead) indicated that he felt the subcontractor (ITRC – Cal Poly) is doing a great job. Study Team and UVWUA next steps include reviewing and recommending a prioritization schedule/list for

implementation activities related to the latest 2nd draft modernization assessment effort for the delivery system.

III. 2014 Selenium Summit

After much discussion about identification of a target audience, the STF decided that rather than have a Se Summit in 2014, the STF should focus on other conferences, gatherings or annual meetings taking place within the basin that might be more successful at reaching specific target audiences.

ACTION ITEM: Sonja will put together a planning group to discuss presentation focus points for the following events:

TARGET AUDIENCE (FARMERS/WATER USERS)

- Soil Health Conference (break-out sessions on second day or sponsor day-one evening dinner and make presentation)
- UVWUA Annual Meeting
- Conservation District Annual Meeting

POLICY MAKERS

- Update to the Roundtable
- Updates to Conservancy Districts (Upper Gunnison, Bostwick Park)
- Simple/straightforward newspaper articles (Hanna Holmes)
- Meet with Newspaper Board again (make sure we have something worthwhile to present). For example GJ Daily Sentinel, Montrose Daily Press, etc.

IV. STF Water Quality Monitoring Program for the Lower Gunnison (10:45am)

- A. Update: 1) Sonja informed the group that she has looked into buying a SC meter. Barb Osmundson indicated FWS may have one they can loan to the STF for the long-term. 2) Sonja is also placing a supply order for water-quality sampling. She hopes to have everything she needs in the next two weeks so that she can collect samples in November.

ACTION ITEM: Sonja will follow up with Barb regarding borrowing an SC meter on a long-term basis.

FOLLOW-UP REPORT: Barb indicated that the paperwork was horrendous and not worth the effort of the STF to “borrow” a flow meter. She suggested that we continue with our plan to buy one.

- B. Review of WQ Monitoring Sites: Sonja reviewed the list of sampling sites with the group. Sites were developed, discussed and approved by the SMP Science Subcommittee. STF sites are short-term reconnaissance as to where CRWCD and Reclamation sponsored sites are long-term trend.

Other updates: Terry indicated that Reclamation hydro techs have been collecting groundwater data and/or surface water data related to habitat replacement projects under the Salinity Program. The sampling sites have lat/long GPS readings. At this time, hard copies of the data are in the habitat replacement files. The STF felt that this data could be useful to have on file.

ACTION ITEM: At the request of the STF, Sonja will look into obtaining copies from Reclamation of the water quality data reports and maintaining a database. The data can be entered into CDSN.

ACTION ITEM: Sonja will talk to Sarah about future partnering on wq sampling in the N. Fork area.

FOLLOW-UP REPORT: Sarah felt that the N.Fork locations helped to fill some major data gaps. She is currently short staffed and won't be able to assist with actual wq sampling. She indicated she would think about our request some more and get back to the STF.

OTHER ITEMS: Question as to whether the STF knows of any selenium data collected on Fruitgrower's Reservoir? The group did not.

ACTION ITEM: Sonja will follow-up with USGS to determine what load if any is being captured from Fruitgrower's.

FOLLOW-UP REPORT: Alfalfa Run drains Fruitgrower's Reservoir. Sonja found water-quality data collected from Alfalfa Run at Austin by the Conservation Center under a NPS Se Study. The data shows dissolved Se concentrations of 19 µg/L (May 2012) and 20 µg/L (December 2012). From the sampling site description, it appears that the site was a significant distance downstream of the Reservoir and could be influenced by groundwater contributions, so it is unclear how representative this data is of what we'd find in Fruitgrower's.

V. Public comment on Utah DEQ Selenium TMDL for the Colorado River

Sonja thought the draft TMDL was very light on details and had some general incorrect information about our efforts. She has been in touch with Carl Adams of the Utah DEQ and provided them with a few verbal comments as well as information on the SMP PFD and the Flow Adjusted Trend Report by USGS. Dave Kanzer noted that there were going to be two rounds of public comment. Sonja asked the STF wanted to submit formal public comments on the draft report.

DECISION: The STF decided that it will NOT submit public comments in the first round. After seeing the second draft report from Utah, the STF can decide whether or not to submit comments in the second round.

ACTION ITEM: Sonja will give factual clarifications to Carl Adams on some items in the first draft report via phone and will verify the schedule for public comment. The STF will consider submitting public comment in the second round.

FOLLOW-UP REPORT: Sonja spoke with Carl on 11-13-13. The second public comment period will likely open on December 15th and remain open for 30 days. The link to Utah's rule comments page is <http://www.waterquality.utah.gov/Rules/rulechange.htm>

VI. On-Farm Irrigation Demonstration Project

A. Status Update – TNC, SMP Tech Subcommittee, EQIP

1. COCA COLA FOUNDATION APPLICATION: The Nature Conservancy (Aaron Derwingson, TNC) took the lead in submitting a brief grant proposal concept to the

Coca Cola Foundation for conducting 3 irrigation demo projects (drip, big-gun and center pivot). Sonja collaborated in developing the proposal and providing information. Aaron should know within a couple of months if Coca Cola would like them to submit a more detailed proposal.

2. UPDATE ON REQUEST TO THE SMP TECHNICAL SUBCOMMITTEE FOR SCTF SUPPORT OF \$5K: The STF request for \$5K would support design and engineering plans and a cost estimate for the big-gun on-farm irrigation demonstration project. Randy Meaker (project landowner, farmer) was present to answer questions. Significant discussion took place but had to be closed due to time constraints. **PROJECT BACKGROUND/HISTORY:** The STF and SMP Work Group meeting minutes from April 22, 2013 show that both the STF & SMP expressed their continued support of exploring the on-farm irrigation demonstration project concept and asked Sonja to continue to work with the SMP Science and Technical Subcommittees. Sonja has received support from both the Science and Technical Subcommittees for exploring the use of big-guns in Mancos shale soils. The SMP Technical subcommittee is requesting \$5K for initial design and engineering of the big-gun system. The information is important for future decision making as well as for providing critical information for the development of future grant proposals in support of the project which will leverage existing funding from SCTF.

Once the design and engineering are done, additional detailed discussions can take place at a future meeting.

FUNDING DECISION: The SMP WG agreed to support a request to the CWCB for \$5K from the SCTF for initial design and engineering for the big-gun on-farm irrigation demonstration.

- B. NPS grant funding opportunity – If Sonja can get the initial design and engineering done on time for the big-gun on-farm irrigation demo, she can submit a grant proposal to the State of Co WQCD for NPS funds and/or to Reclamation under WaterSMART.
- C. Trash screen on the DFG Lateral – Sonja indicated that having a trash on the DFG lateral would be required if the big-gun BMP irrigation implementation goes forward. Sonja contacted the UVWUA ditch rider for that lateral and he confirmed that just about every water user on that lateral complained of trash this year. He was uncertain if this would be an issue next year. Steve and Ed (UVWUA Manager and Assistant Manager) indicated it might also be resulting from a low-water year. Some more research might be needed, but a grant application could be put forward to the River District Grant Program and WaterSMART.

SELENIUM MANAGEMENT PROGRAM WORK GROUP

I. Annual SMP Report and SMP Action Plan Update

Annual SMP Report: The SMP WG relayed their desire to have input and comment into the annual SMP report to FWS. **OUTCOME:** Terry agreed that SMP WG will have an opportunity to provide input.

SMP Action Plan: Terry reviewed the SMP Action Plan. The SMP WG provided input.

Other: The SMP Work Group asked John Sottolare (Salinity Coordinator at Reclamation) if the “SMP WG group could submit formal comment to the Salinity Forum on the fact that the cap on the salinity funding is counterproductive to what the SMP Work Group is trying to accomplish in the Lower Gunnison?”

OUTCOME: John and Terry indicated that they didn’t feel it was necessary to provide a formal letter to the Salinity Forum. They indicated that they could relay the message and in fact already have. The SMP WG could also submit formal written comment when the Lower Gunnison Salinity Study Report is out for public review.

II. USGS SMP 2011 & 2012 Water-Quality Trend Analysis

WQ TREND ANALYSIS: The report looked at 14 SMP surface water monitoring sites. Annual dissolved selenium loads were estimated using multiple linear regressions for 5 gaged sites that have long term selenium sampling and continuous stream flow monitors. Instantaneous dissolved selenium loads were calculated for the remaining sites when the sample was accompanied by a discharge measurement. Report addresses WY 2011 and 12. The Se trend is still decreasing.

ACTION ITEM: The SMP Science team needs to review the report. Ken’s looking for comments on any other data analyses we’d like to incorporate and on the format. All comments should go to Ken with Terry copied.

OTHER: Governance Document - There was informed consent with approving the governance document with a couple of concerns noted.

ANNUAL PBO PROGRESS REPORT TO FWS: January is the due date for the Annual Progress Report on the Gunnison River PBO to FWS.

REQUEST: Terry would like to have a couple of people work with him on putting together the next SMP annual report to FWS. After drafting with a subgroup, it will be distributed to the SMP WG for review and input. No formal action taken at this time to develop a subgroup.

ACTION ITEM: Terry asked Sonja to send a copy of the draft Science Plan to the SMP WG. Review and comment will be done at the December 3rd SMP WG meeting.

III. 2014 Species Conservation Trust Fund Request

ACTION ITEM: The Science and Technical subcommittees should schedule meetings in November and make formal recommendations to Steve Miller for SCTF funding at the December 3rd SMP WG meeting.

IV. Science Committee Update

A. Research Projects

1. SCIENCE PLAN: Where should the GIS data collected by the Science Planning process reside?

ACTION ITEM: Include as an agenda item at the upcoming Science Team meeting on November 18th.

NRCS Input into Science Plan: Dave Dearstyne reported that he commented on soils section and suggested putting more information into the Science Plan on soil health.

Steve Miller emphasized that the Science Plan should serve as guide for future research and studies and that if a future proposal was made for funding that in no way related to the data gaps and science needs identified in the plan that he'd be unlikely to fund it. Dave Brown (USGS) said that the Science Plan is modeled after the SMP Action Plan and is not meant to replace it.

ACTION ITEM: Terry requested that people with research projects make sure that he and USGS (Ken) have necessary information about the project so that it can be incorporated into the science plan doc.

Steve Miller indicated that he received an invoice from USGS for the Science Plan, but he is withholding payment until a product is received. Suzanne Paschke indicated that the invoices are computer generated and she understands his frustration given that the project is running behind schedule.

2. SOIL CORE & COLUMN STUDY (Alisa Mast, USGS Denver): A first draft report on the column study has been done. Ninety-nine percent of the data analysis is complete. Alisa will be sending out to review request to the study co-authors. Project summary and findings: This study investigates processes controlling release and transport of selenium (Se) in the Lower Uncompahgre River Basin in western Colorado. Se occurs naturally in the underlying Mancos Shale and is leached to ground and surface water by agricultural and domestic irrigation and leakage from irrigation canals. Sequential extractions were used to characterize Se speciation in non-irrigated and irrigated soils from a farm site and sediments from a wetland formed by a leaking canal. In undisturbed areas, most Se occurs in highly soluble sodium salts and gypsum. In irrigated soils, soluble forms of Se were depleted and most Se was associated with organic matter that was stable under near surface weathering conditions. Laboratory experiments and geochemical modeling confirm that Se primarily is released from highly soluble salts and gypsum dissolution. High concentrations of extractable nitrate were found in undisturbed soils and bedrock, which appears to be derived from weathered organic matter in the original shale rather than from agricultural sources. Nitrate derived from bedrock sources appears to inhibit the reduction of Se resulting in elevated concentrations of Se in groundwater. Inverse geochemical modeling was used to identify the geochemical reactions controlling groundwater chemistry in the wetland. A conceptual model of Se weathering is presented and used to explain seasonal variations in the surface-water chemistry of Loutzenhizer Arroyo, the largest loader of Se to the Uncompahgre River.

- B. Water Quality Monitoring – Reclamation and CRWCD are in the process of developing new joint funding agreement for FY14. Sampling schedule also being developed. Sonja provided new WQCD sampling schedule to Ken.

ACTION ITEM: A sampling schedule for the STF sites needs to be developed at the next Science Team meeting.

V. Technical Committee Update

A. Meeker Demonstration Project

FUNDING DECISION: The SMP WG agreed to support a request to the CWCB for \$5K (SCTF) for the initial design and engineering for the big-gun on-farm irrigation demonstration.

B. Other

ACTION ITEM: Terry would like the Tech subcommittee to take charge of exploring new methods of reducing selenium (lining, piping, irrigation efficiency).

ACTION ITEM: Steve Miller would like a final report on the EC Canal Lining Project done with SCTF funds. Steve Fletcher said that UVWUA has a draft budget summary and other documentation in various stages and he'll work to put that together.

FOLLOW-UP: Report will likely be submitted to Steve Miller in early February due to other project priorities, holidays, etc.

VI. Other Business

A SMP WG meeting is scheduled for December 3rd (Grand Junction). For those who are not able to travel, a webinar will be set up.

Adjourn (4:15pm)